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L1: Entry 1 of 1

File: USPT

Dec 1, 1998

US-PAT-NO: 5843436

DOCUMENT-IDENTIFIER: US 5843436 A

TITLE: Method of preventing and treating bacterial infection of sutures and prosthetic devices, and promoting ingress of leukocytes into tumor foci

DATE-ISSUED: December 1, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Loike; John	Jamaica Estates	NY		
Silverstein; Samuel C.	New York	NY		

US-CL-CURRENT: 424/94.64; 424/423, 424/532, 424/94.63, 514/2

CLAIMS:

What is claimed is:

1. A method of preventing a chronic infection from occurring due to the presence of bacterial cells on a surface of a foreign body in a subject, which consists essentially of coating the foreign body before placing it in the subject with a fibrinolytic agent capable of preventing the accumulation of fibrin on the surface of the foreign body so as to permit leukocyte cells to reach and kill any bacterial cells present on the surface of the foreign body and thereby prevent the chronic infection.
2. The method of claim 1, wherein the foreign body is a prosthetic device.
3. The method of claim 1, wherein the foreign body is a catheter.
4. The method of claim 1, wherein the foreign body is a suture.
5. The method of claim 1, wherein the subject is a mammal.
6. The method of claim 5, wherein the mammal is a human.
7. The method of claim 1, wherein the fibrinolytic agent is a plasminogen activator.
8. The method of claim 7, wherein the plasminogen activator is urokinase.
9. The method of claim 7, wherein the plasminogen activator is streptokinase.
10. The method of claim 7, wherein the plasminogen activator is tissue plasminogen activator.

L7 ANSWER 1 OF 2 CANCERLIT
ACCESSION NUMBER: 96605559 CANCERLIT
DOCUMENT NUMBER: 96605559
TITLE: Biphasic effect (stimulation and suppression) by
 tenascin on human glioma cell migration (Meeting
 abstract).
AUTHOR: Berens M E; Giese A
CORPORATE SOURCE: Neuro-Oncology Lab., Barrow Neurological Inst. of St.
 Joseph's Hosp. and Medical Center, Phoenix, AZ 85013-4496.
SOURCE: J Cell Biochem, (1995) Suppl 19B 18.
 ISSN: 0730-2312.
DOCUMENT TYPE: (MEETING ABSTRACTS)
LANGUAGE: English
FILE SEGMENT: Institute for Cell and Developmental Biology
ENTRY MONTH: 199605
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 Last Updated on STN: 19970509

AB **Tenascin** is an extracellular matrix protein which is expressed
in human gliomas. Cell receptors for **tenascin** are reported to
utilize the alpha v subunit integrin as one chain of the heterodimer
receptor. We tested whether purified **tenascin**, passively
deposited on monolayer surfaces, influenced the adhesion or migration
behavior of human glioma-derived cells, SF767. Studies of other ECM
proteins (laminin, collagen, fibronectin, vitronectin) demonstrated that
adhesion increases in a dose-dependent manner, with optimal (maximum)
specific attachment by 30-60 minutes at 37 C using 100 ug/ml. In contrast,
glioma adhesion to **tenascin** increased to a maximum degree at 10
ug/ml, but steadily decreased using coating concentrations of 33 and 100
ug/ml. Cell adhesion to **tenascin** could be completely blocked (to
basal levels) using anti-**betal antibodies**.
Surprisingly, treatment with anti-alpha v antibodies led to slightly
enhanced cell adhesion. Using a microliter scale migration assay (Berens
et al, Clin Exp Mets; 1994) it was found that migration of glioma cells on
tenascin was dose-dependently stimulated at coating concentrations
of 1 and 3 ug/ml but cell migration was actually suppressed (to rates
below that seen on BSA) when tested on 30 or 100 ug/ml. Migration on
optimal concentrations of **tenascin** could be reversibly inhibited
by treatment with anti-**betal antibodies**; treatment
with anti-alpha v antibodies actually stimulated glioma migration. We
conclude that glioma cells express two separate receptors for
tenascin; and that ligand density, determined by different coating
concentrations of **tenascin**, activates these different integrins.
The betal containing integrin(s) mediate adhesive and migratory responses,
while the alpha v-containing integrin(s) appear to be counteradhesive and
inhibitory to migration. These findings highlight the interplay between
different integrins which recognize the same ECM protein, and demonstrate
that the net response of a cell to complex extracellular matrix ligands is
an integrated manifestation of differing, and possibly opposing,
integrin-mediated reactions.